Claims

1. An air flow system in oven, the system comprising:

a cavity for housing food;

a ventilation fan provided at an electronic equipment chamber outside of the cavity;

a first intake port provided at a front and upper surface of the microwave oven;

a lower barrier for partitioning a lower space of the cavity;

an outlet duct provided at one side of the lower barrier, for allowing a flow of hot air using the ventilation fan;

an outlet space provided at the other side of the lower barrier, for exhausting an internal air of the cavity;

a plurality of front outlet ports provided at a front and lower surface of the microwave oven, for exhausting hot air of the outlet duct and the outlet space; and

a communication port provided at one side of the lower barrier, for communicating the outlet duct with the outlet space.

2. The system according to claim 1, wherein the communication port is separated and provided in plural.

3. The system according to claim 1, further comprising: an air guide part provided at one side of the communication port such that air passing through the communication port is guided to a front side of the microwave oven.

4. The system according to claim 1, wherein the lower barrier is cut and bent to form the communication port.

5. The system according to claim 1, further comprising: the air guide part covering the communication port and being slantingly integrated with the lower barrier.

6. The system according to claim 1, wherein the communication port is opened at the front side of the microwave oven.

7. The system according to claim 1, further comprising: a second intake port provided at a rear surface of the microwave oven.

8. The system according to claim 1, wherein a portion of air exhausted from the ventilation fan is guided into the cavity.

9. The system according to claim 1, further comprising a lower outlet port provided at a bottom surface of the microwave oven, for exhausting air.

10. The system according to claim 1, wherein the communication port allows hot air of the outlet duct to flow to the outlet space.

11. An air flow system in oven, the structure comprising:

a cavity for housing food;

an electronic equipment chamber in which a plurality of electronic equipments is provided to control the cavity;

an outer case encompassing the cavity and the electronic equipment chamber to form an exterior;

a door for selectively opening and closing a front of the cavity;

a first intake port provided at an upper side of the

door, for allowing the introduction of air;

a front outlet port provided at a front and lower side of the microwave oven such that the introduced air is exhausted to a front of the microwave oven;

a ventilation fan assembly provided at the electronic equipment chamber, for inhaling air through the intake port and exhausting the air through the outlet port.

12. The system according to claim 11, wherein the first intake port is a plurality of through-holes.

13. The system according to claim 11, wherein the front outlet port is formed by punching a front plate provided at a front of the microwave oven.

14. The system according to claim 11, wherein the front outlet port is a plurality of through-holes.

15. The system according to claim 11, further comprising: a lower outlet port provided at a lower side of the microwave oven.

16. The system according to claim 11, further comprising: a base plate provided at a lower side of the cavity and having the lower outlet port.

17. The system according to claim 11, further comprising: a second intake port provided at a rear side of the electronic equipment chamber, for introducing a rear air into the electronic equipment chamber.

18. An air flow system in oven, the system comprising:

a cavity for housing food;

an electronic equipment chamber in which a plurality of electronic equipments is provided to control the cavity;

an outer case encompassing the cavity and the electronic equipment chamber to form an exterior;

a door for selectively opening and closing a front of the cavity;

a control panel for displaying a state of the cavity;

an intake port provided at a rear side of the electronic equipment chamber, for allowing the introduction of air into the electronic equipment chamber;

a lower outlet port provided at a lower side of the microwave oven;

a ventilation fan assembly provided at the electronic equipment chamber, for inhaling air through the intake port and exhausting the air through the outlet port.

19. The system according to claim 18, further comprising an intake port provided at an upper side of the control panel, for introducing air.

20. An air flow system in oven, the structure comprising:

a cavity for housing food;

a ventilation fan provided at an electronic equipment chamber outside of the cavity;

an intake port provided at a front and upper surface of the microwave oven and/or at a rear surface of the microwave oven;

a lower barrier provided at a lower side of the cavity, for partitioning a lower space of the cavity;

an outlet duct provided at one side of the lower barrier, for allowing a flow of hot air using the ventilation fan;

an outlet space provided at the other side of the lower

barrier, for exhausting an internal air of the cavity; and

an outlet port provided at a front surface of the microwave oven and/or at a lower side of the microwave oven, for exhausting the hot air.

21. The system according to claim 20, further comprising: a communication port provided at the lower barrier, for communicating the outlet duct and the outlet space with each other.

22. The system according to claim 20, further comprising: the communication port provided at a front side of the lower barrier such that a portion of the air of the outlet duct is exhausted into the outlet space.

23. The system according to claim 20, further comprising: an air guide part integrated with the lower barrier, for guiding to exhaust the air of the outlet duct to a front side of the microwave oven such that a humidity of the hot and humid air is reduced just prior to the exhaustion from the outlet space.

24. The system according to claim 20, further comprising:

a communication port for opening the lower barrier; and

an air guide part for guiding the air passing through the communication port, toward the door.

25. An air flow system in oven, the structure comprising:

a cavity for housing food within the microwave oven;

a door for opening and closing the cavity;

an intake port provided at an upper side of the door and/or at a rear side of the microwave oven;

a ventilation fan provided within the electronic equipment chamber, for inhaling air through the intake port; and

an outlet port provided at a front and lower surface of the microwave oven and/or at a lower surface of the microwave oven, for exhausting the air passing though the ventilation fan.

26. The system according to claim 25, further comprising: a barrier for partitioning a lower space of the cavity into a first space to which the air passing through the cavity is exhausted, and a second space to which the air passing through the electronic equipment chamber is exhausted.

27. The system according to claim 25, wherein the barrier has a communication port for communicating both spaces with each other.

28. The system according to claim 25, wherein the barrier has a communication port for allowing a flow of the air of the second space to the first space.

29. The system according to claim 28, wherein an air guide part is integrated with the barrier to guide the air passing through the communication port, to a front side of the microwave oven.